

Applicants: SHEMI, Amotz *et al.*
Serial Number: 10/590,053

Attorney Docket: P-6624-US

REMARKS

Applicants assert that the claimed invention is new, non-obvious, and useful. Favorable reconsideration and allowance of the application are respectfully requested in view of the foregoing amendments and following remarks.

Status of the Claims

Claims 1-3 and 6-18 are pending in the application.

Claims 4-5 have been canceled, without prejudice or disclaimer.

Claims 1, 6-14 and 17-18 have been amended to more clearly define what the Applicants regard as some embodiments of the invention.

No new matter has been added.

Claim Rejections Based on Yoshimura Under 35 U.S.C. §102(e) and 35 U.S.C. §103(a)

The Office Action rejected claims 1-14 and 16-18 as being anticipated by Yoshimura *et al.*, United States Patent Number 6,611,635 ("Yoshimura").

The Office Action rejected claim 15 as being unpatentable over Yoshimura.

Claims 4-5 have been canceled, without prejudice or disclaimer. Accordingly, the discussion herein relates to the pending claims 1-3 and 6-18.

Applicants respectfully submit that Yoshimura does not disclose or describe all of the features of independent claims 1 and 10, as currently amended, and consequently does not anticipate independent claims 1 and 10 or the claims dependent thereon.

Each one of independent claims 1 and 10, as currently amended, recites in paraphrase, *inter alia*, -

**wherein the hybrid module is a glass-based packageless non-PCB
module;**

These features are not disclosed by Yoshimura.

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Each one of independent claims 1 and 10, as currently amended, recites in paraphrase,
inter alia, -

wherein the optical waveguide is a glass-based mono-layer optical waveguide formed of a single layer of a single uncoated non-etched material;

These features are not disclosed by Yoshimura.

Each one of independent claims 1 and 10, as currently amended, recites in paraphrase,
inter alia, -

wherein a first edge of the optical waveguide, located in proximity to the electro-optical component, is tapered to improve the connection between the optical waveguide and the electro-optical component, and a second edge of the optical waveguide is non-tapered;

These features are not disclosed by Yoshimura.

Each one of independent claims 1 and 10, as currently amended, recites in paraphrase,
inter alia, -

wherein the hybrid module further comprises an optical fiber connector for direct connection to an external optical fiber, wherein the optical fiber connector is polished at an angle;

These features are not disclosed by Yoshimura.

Each one of independent claims 1 and 10, as currently amended, recites in paraphrase,
inter alia, -

wherein the electro-optical component and the electronic component are enclosed in a heat sink encapsulation to dissipate heat.

These features are not disclosed by Yoshimura.

Applicants further note the following comments.

(1) Yoshimura is directed to a packaged module. In contrast, independent claims 1 and 10, as currently amended, are directed to a packageless module. Paragraphs 0013 and 0014 of the instant application (as published) disclose that the claimed module can be mounted or bonded to a Package – namely, the claimed module itself is Not a package, it is packageless.

(3) Yoshimura is directed to a PCB. In contrast, independent claims 1 and 10, as currently amended, are directed to a non-PCB module. Paragraphs 0010 and 0011 and 0014 of the instant application (as published) disclose that the claimed module can be mounted or bonded or soldered to a PCB – namely, the claimed module itself is Non-PCB.

(4) Yoshimura describes, at most, a multi-layer module that includes a glass layer. In contrast, independent claims 1 and 10, as currently amended, are directed to a mono-layer glass-based single-layer optical waveguide.

(5) Independent claims 1 and 10, as currently amended, recite an optical glass-based waveguide which is uncoated non-etched, and thus has improved qualities and improved performance. Yoshimura does not disclose these features.

(6) Figure 33 of Yoshimura shows tapering of the two edges of the waveguide. In contrast, independent claims 1 and 10, as currently amended, recite tapering only on one side of the waveguide: one edge is tapered, the other edge is non-tapered.

(7) Independent claims 1 and 10, as currently amended, recite an optical fiber connector for direct connection to an external optical fiber, and the optical fiber connector is polished at an angle. These features are not disclosed by Yoshimura.

(8) Independent claims 1 and 10, as currently amended, recite encapsulation in a heat sink to dissipate heat. Yoshimura does not disclose these features. It is noted that Yoshimura does not mention the term “heat sink” at all. It is further noted that Yoshimura indeed mentions the term “metal diffusion”, but ONLY in the context of JOINING elements (“metal diffusion JOINTS”), and not for the purpose of dissipating heat. Therefore, the

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"metal diffusion JOINTS" of Yoshimura do not reasonably anticipate the Heat Sink for dissipating heat.

In view of the above, Applicants respectfully submit that independent claims 1 and 10, as currently amended, are novel

Applicants respectfully submit that these features of independent claim 1 and 10, as currently amended, would not have been obvious to a person skilled in the art at the time the invention was made in view of Yoshimura and/or any of the references on record, taken individually or in any combination. Therefore, independent claims 1 and 10, as currently amended, are also patentable.

It is respectfully submitted that dependent claims 2-3, 6-9 and 17-18 are likewise novel and patentable at least by virtue of their dependency from amended independent claim 1.

It is respectfully submitted that dependent claims 11-16 are likewise novel and patentable at least by virtue of their dependency from amended independent claim 10.

In view of the above, Applicants respectfully request that the rejection of claims 1-3 and 6-18 under 35 U.S.C. §102(e) and/or under 35 U.S.C. §103(a) be withdrawn.

Conclusion

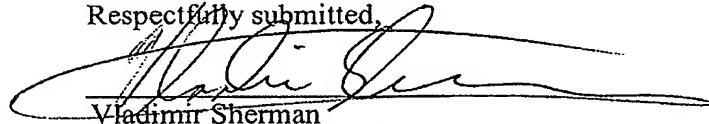
In view of the foregoing amendment and remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

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No fees are believed to be due in connection with this paper. If any fees are in fact due in connection with this paper, please charge any such fees to deposit account No. 50-3400.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Vladimir Sherman', is written over a horizontal line.

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